

# RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:	09/648,692A
Source:	1FW16 -
Date Processed by STIC:	4/22/04~

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221 Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 4.1 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<a href="http://www.uspto.gov/ebc/efs/downloads/documents.htm">http://www.uspto.gov/ebc/efs/downloads/documents.htm</a>, EFS Submission User Manual cPAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- Hand Carry directly to (EFFECTIVE 12/01/03):
   U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two. 2011 South Clark Place, Arlington, VA 22202
- Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 4B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

# Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 09/648,692/
ATTN: NEW RULES CASES:	PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE
Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:  (2) INFORMATION FOR SEQ ID NO.X: (insert SEQ ID NO where "X" is shown)  (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  (xi) SEQUENCE DESCRIPTION:SEQ ID NO.X: (insert SEQ ID NO where "X" is shown)  This sequence is intentionally skipped
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If Intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing.  Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
0Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.  Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
Patentin 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
3 Misuse of n/Xaa	"n" can only represent a single <u>nucleotide</u> ; "Xaa" can only represent a single <u>amino acid</u>

 $AMC-Biotechnology\ Systems\ Branch-09/09/2003$ 



IFW16

```
RAW SEQUENCE LISTING
                                                              DATE: 04/23/2004
                     PATENT APPLICATION: US/09/648,692A
                                                               TIME: 11:49:45
                     Input Set : A:\Seqlist.txt
                     Output Set: N:\CRF4\04232004\1648692A.raw
      4 <110> APPLICANT: Dolly, James Oliver
                                                               Does Not Comply
              Li, Yan
              Chan, C.K.
                                                           Corrected Diskette Needed
                                                                        sliten 4
on Ever Summary
Steet
              Aoki, Kei Roger
      9 <120> TITLE OF INVENTION: Activatable Recombinant Neurotoxins
     12 <130> FILE REFERENCE: 17311 (BO)
     14 <140> CURRENT APPLICATION NUMBER: 09/648,692A
     15 <141> CURRENT FILING DATE: 2000-08-25
     17 <150> PRIOR APPLICATION NUMBER: 60/150,710
     18 <151> PRIOR FILING DATE: 1999-08-25
     20 <160> NUMBER OF SEQ ID NOS: 29
     22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
ERRORED SEQUENCES
     91 <210> SEQ ID NO: 7
     92 <211> LENGTH: 65
     93 <212> TYPE: PRT
     94 <213> ORGANISM: Artificial Sequence
     96 <220> FEATURE:
     97 <223> OTHER INFORMATION: Engineered Intrachain loop region for C. tetani
              toxin
     100 <400> SEQUENCE: 7
     101 Ser Lys Leu Ile Gly Leu Cys Lys Lys Ile Ile Pro Pro Thr Asn Ile
     103 Arg Glu Asn Leu Tyr Asn Arg Thr Ala Gly Glu Lys Leu Tyr Asp Asp
     105 Asp Asp Lys Asp Arg Trp Gly Ser Ser Arg Ser Leu Thr Asp Leu Gly
B--> 106
                                                                 Gly Glu Leu Cys Ile
     130 <210> SEQ ID NO: 10
     131 <211> LENGTH: 4017
     132 <212> TYPE: DNA
     133 <213> ORGANISM: Clostridium botulinum
    135 <400> SEQUENCE: 10
  -> 136 gaattcaagt agtagataat aaaaataatg ccacagattt ttattattaa taatgatata
                                                                                 60
     137 tttateteta aetgtttaae tttaaettat aacaatgtaa atatatattt gtetataaaa
                                                                                120
     138 aatcaagatt acaattgggt tatatgtgat cttaatcatg atataccaaa aaagtcatat
                                                                                180
     139 ctatggatat taaaaaaatat ataaatttaa aattaggaga tqctqtatat qccaaaaatt
                                                                                240
     140 aatagtttta attataatga teetgttaat gatagaacaa ttttatatat taaaccagge
                                                                                300
     141 gqttqtcaag aattttataa atcatttaat attatgaaaa atatttggat aattccagag
     142 agaaatgtaa ttggtacaac cccccaagat tttcatccgc ctacttcatt aaaaaatgga
                                                                                420
     143 gatagtagtt attatgaccc taattattta caaagtgatg aagaaaagga tagattttta
                                                                                480
```

DATE: 04/23/2004

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/648,692A

S/09/648,692A TIME: 11:49:45

Input Set : A:\Seqlist.txt

Output Set: N:\CRF4\04232004\1648692A.raw

	aaaatagtca						540
	gaagaactgt			_			600
146	catattggtg	atgcatcagc	agttgagatt	aaattctcaa	atggtagcca	agacatacta	660
147	ttacctaatg	ttattataat	gggagcagag	cctgatttat	ttgaaactaa	cagttccaat	720
148	atttctctaa	gaaataatta	tatgccaagc	aatcaccgtt	ttggatcaat	agctatagta	780
149	acattctcac	ctgaatattc	ttttagattt	aatgataatt	gtatgaatga	atttattcaa	840
	gatcctgctc						900
151	aaagggatta	ctacaaagta	tactataaca	caaaaacaaa	atcccctaat	aacaaatata	960
152	agaggtacaa	atattgaaga	attcttaact	tttggaggta	ctgatttaaa	cattattact	1020
153	agtgctcagt	ccaatgatat	ctatactaat	cttctagctg	attataaaaa	aatagcgtct	1080
154	aaacttagca	aagtacaagt	atctaatcca	ctacttaatc	cttataaaga	tgtttttgaa	1140
155	gcaaagtatg	gattagataa	agatgctagc	ggaatttatt	cggtaaatat	aaacaaattt	1200
156	aatgatattt	ttaaaaaatt	atacagcttt	acggaatttg	atttacgaac	taaatttcaa	1260
157	gttaaatgta	ggcaaactta	tattggacag	tataaatact	tcaaactttc	aaacttgtta	1320
158	aatgattcta	tttataatat	atcagaaggc	tataatataa	ataatttaaa	ggtaaatttt	1380
159	agaggacaga	atgcaaattt	aaatcctaga	attattacac	caattacagg	tagaggacta	1440
160	gtaaaaaaaa	tcattagatt	ttgtaaaaat	attgtttctg	taaaaggcat	aaggaaatca	1500
161	atatgtatcg	aaataaataa	tggtgagtta	ttttttgtgg	cttccgagaa	tagttataat	1560
162	gatgataata	taaatactcc	taaagaaatt	gacgatacag	taacttcaaa	taataattat	1620
163	gaaaatgatt	tagatcaggt	tattttaaat	tttaatagtg	aatcagcacc	tggactttca	1680
164	gatgaaaaat	taaatttaac	tatccaaaat	gatgcttata	taccaaaata	tgattctaat	1740
165	ggaacaagtg	atatagaaca	acatgatgtt	aatgaactta	atgtatttt	ctatttagat	1800
166	gcacagaaag	tgcccgaagg	tgaaaataat	gtcaatctca	cctcttcaat	tgatacagca	1860
167	ttattagaac	aacctaaaat	atatacattt	ttttcatcag	aatttattaa	taatgtcaat	1920
168	aaacctgtgc	aagcagcatt	atttgtaagc	tggatacaac	aagtgttagt	agattttact	1980
169	actgaagcta	accaaaaaag	tactgttgat	aaaattgcag	atatttctat	agttgttcca	2040
170	tatataggtc	ttgctttaaa	tataggaaat	gaagcacaaa	aaggaaattt	taaagatgca	2100
171	cttgaattat	taggagcagg	tattttatta	gaatttgaac	ccgagctttt	aattcctaca	2160
172	attttagtat	tcacgataaa	${\tt atcttttta}$	ggttcatctg	ataataaaaa	taaagttatt	2220
173	aaagcaataa	ataatgcatt	gaaagaaaga	gatgaaaaat	ggaaagaagt	atatagtttt	2280
174	atagtatcga	attggatgac	taaaattaat	acacaattta	ataaaagaaa	agaacaaatg	2340
175	tatcaagctt	tacaaaatca	agtaaatgca	attaaaacaa	taatagaatc	taagtataat	2400
	agttatactt						2460
	aatgaactta						2520
178	agttctatat	cctatttaat	gaaaataata	aatgaagtaa	aaattaataa	attaagagaa	2580
179	tatgatgaga	atgtcaaaac	gtatttattg	aattatatta	tacaacatgg	atcaatcttg	2640
	ggagagagtc						2700
181	tttaagcttt	cttcttatac	agatgataaa	attttaattt	catattttaa	taaattcttt	2760
182	aagagaatta	aaagtagttc	agttttaaat	atgagatata	aaaatgataa	atacgtagat	2820
	acttcaggat						2880
	aaaaatcaat						2940
	tacattatat						3000
	aactatgata						3060
	gataataatt						3120
	gataatcgag						3180
	gattatataa						3240
	ctttatatta						3300
	gttagtgaca						3360
192	agatatttta	atatttttga	taaagaatta	gatgaaacag	aaattcaaac	tttatatagc	3420

DATE: 04/23/2004

```
PATENT APPLICATION: US/09/648,692A
                                                                TIME: 11:49:45
                     Input Set : A:\Seqlist.txt
                     Output Set: N:\CRF4\04232004\1648692A.raw
     193 aatgaaccta atacaaatat tttgaaggat ttttgggggaa attatttgct ttatgacaaa
                                                                                 3480
     194 gaatactatt tattaaatgt gttaaaacca aataacttta ttgataggag aaaagattct
                                                                                 3540
     195 actttaagca ttaataatat aagaagcact attettttag etaatagatt atatagtgga
                                                                                 3600
     196 ataaaagtta aaatacaaag agttaataat agtagtacta acgataatct tgttagaaag
                                                                                 3660
     197 aatgatcagg tatatattaa ttttgtagcc agcaaaactc acttatttcc attatatgct
                                                                                 3720
     198 gatacagcta ccacaaataa agagaaaaca ataaaaatat catcatctgg caatagattt
                                                                                 3780
     199 aatcaagtag tagttatgaa ttcagtagga aattgtacaa tgaattttaa aaataataat
                                                                                 3840
E--> 200
ggaaataata ttgggttgtt aggtttcaag gcagatactg tcgttgctag tacttggtat
                                               See Ment on Even Surmary Steet
see very site (same even
in beginning to
in beginning to
     243 <210> SEQ ID NO: 15
     244 <211> LENGTH: 5
     245 <212> TYPE: PRT
     246 <213> ORGANISM: Site
                                  C2137 response
     248 <220> FEATURE:
     249 <221> NAME/KEY: SITE
     250 <222> LOCATION: (1)...(5)
     251 <223> OTHER INFORMATION: protease cleavage site
     253 <400> SEQUENCE: 15
E--> 254 Asp Asp Asp Asp Lys(1
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     272 <211> LENGTH: 5
     273 <212> TYPE: PRT
     274 <213> ORGANISM: Clostridium species
     276 <220> FEATURE:
     277 <221> NAME/KEY: ZN FING
     278 <222> LOCATION: (1)...(5)
     279 <223> OTHER INFORMATION: Xaa=any amino acid
     281 <400> SEQUENCE: 17
E--> 282 His Glu Xaa Xaa His 1
     295 <210> SEO ID NO: 19
     296 <211> LENGTH: 22
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     298 <213> ORGANISM: Artificial Sequence
     300 <220> FEATURE:
     301 <223> OTHER INFORMATION: Linker
     303 <400> SEQUENCE: 19
E--> 304
Met Gly Gly Ser His His His His His Gly Met Ala Ser Met Thr/1
     306 <210> SEQ ID NO: 20
     307 <211> LENGTH: 19
     308 <212> TYPE: PRT
     309 <213> ORGANISM: Clostridium botulinum
     311 <400> SEQUENCE: 20
Ser Leu Thr Asp Leu Gly Gly Glu Leu Cys Ile Lys Ile Lys Asn Gly 1
     325 <210> SEQ ID NO: 22
     326 <211> LENGTH: 7
     327 <212> TYPE: PRT
     328 <213> ORGANISM: Artificial Sequence
     330 <220> FEATURE:
     331 <221> NAME/KEY: SITE
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RAW SEQUENCE LISTING

332 <222> LOCATION: (2)...(3)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/648,692A

DATE: 04/23/2004 TIME: 11:49:45

Input Set : A:\Seqlist.txt

Output Set: N:\CRF4\04232004\1648692A.raw

333 <223> OTHER INFORMATION: Xaa=any amino acid 335 <223> OTHER INFORMATION: Protease cleavage site W--> 337 <400> 22 E--> 338 Glu Xaa Xaa Tyr Ser Gln Ser (1 340 <210> SEQ ID NO: 23 341 <211> LENGTH: 7 342 <212> TYPE: PRT 343 <213> ORGANISM: Artificial Sequence 345 <220> FEATURE: 346 <221> NAME/KEY: SITE 347 <222> LOCATION: (2)...(3) 348 <223> OTHER INFORMATION: Xaa=any amino acid 350 <221> NAME/KEY: SITE 351 <222> LOCATION: (5)...(5) 352 <223> OTHER INFORMATION: Xaa=any amino acid 354 <223> OTHER INFORMATION: Protease cleavage site W--> 356 <400> 23 E--> 357 Glu Xaa Xaa Tyr Xaa Gln Gl∳ 359 <210> SEQ ,ID NO: 24 360 <211> LENGTH: 18 361 <212> TYPE: PRT 362 <213> ORGANISM: Artificial Sequence 364 <220> FEATURE:

· 367 <400> SEQUENCE: 24

Met Arg Gly Ser His His His His His Gly Ser Pro Lys Ile Asn

365 <223> OTHER INFORMATION: Translated PCR fragment



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/648,692A

DATE: 04/23/2004 TIME: 11:44:32

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\04232004\1648692A.raw

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		ggagagagtc						2700
		tttaagcttt						2760
	185	aagagaatta	aaagtagttc	agttttaaat	atgagatata	aaaatgataa	atacgtagat	2820
		acttcaggat						2880
		aaaaatcaat						2940
		tacattatat						3000
		aactatgata						3060
		gataataatt						3120
		gataatcgag						3180
	192	gattatataa	ataagtggat	ttttgtaact	ataactaatg	atagattagg	agattctaaa	3240
		ctttatatta						3300
	194	gttagtgaca	atatattatt	taaaatagtt	aattgtagtt	atacaagata	tattggtatt	3360
	195	agatattta	atatttttga	taaagaatta	gatgaaacag	aaattcaaac	tttatatagc	3420
	196	aatgaaccta	atacaaatat	tttgaaggat	ttttggggaa	attatttgct	ttatgacaaa	3480
	197	gaatactatt	tattaaatgt	gttaaaacca	aataacttta	ttgataggag	aaaagattct	3540
	198	actttaagca	ttaataatat	aagaagcact	attcttttag	ctaatagatt	atatagtgga	3600
	199	ataaaagtta	aaatacaaag	agttaataat	agtagtacta	acgataatct	tgttagaaag	3660
		aatgatcagg						3720
		gatacagcta						3780
		aatcaagtag						3840
		ggaaataata						3900
		tatacacata						3960
	205	gaacatggat	ggcaagaaaa	ataaaaatta	gattaaacgg	ctaaagtcat	aaattcc	4017
		<210> SEQ I		<b>.</b> .		~		
	208	<211> LENGT	H: 37 Arti	ficual				
		<212> TYPE:		110-0				
C>		<213> ORGAN		.cal)Sequenc	e			
		212 <220> FEATURE:						
	213	<223> OTHER	INFORMATIC	N: PCR prim	ner			
		<400> SEQUE						
	216	cccggatccc	caaaaattaa	tagttttaat	tataatg			37
	218	<210> SEQ I	D NO: 12					
	219	<211> LENGT	H: 36				•	
		<212> TYPE:	- / [-		alid 2213	7 respor	u	
		<213> ORGAN		imer) //w	abd 2213	7.		
		<400> SEQUE						
		cccctgcagt		gccatccatg	ttcttc		*	36
	226	<210> SEQ I	D NO: 13					
	227	<211> LENGT	H: 31					
		<212> TYPE:						
		<213> ORGAN		cial Sequen	ice -			
		<220> FEATU						•
	232	<223> OTHER	INFORMATIO	N: PCR prim	er			
	234	<400> SEQUE	NCE: 13					
		5 cagttaatac attcattaca tggactatat g						31
		<210> SEQ I						
	238	<211> LENGTI	H: 26	•				

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/648,692A

DATE: 04/23/2004 TIME: 11:49:46

Input Set : A:\Seqlist.txt

Output Set: N:\CRF4\04232004\1648692A.raw

### Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:7; Line(s) 106 Seq#:10; Line(s) 200

Seq#:19; Line(s) 304

Seq#:20; Line(s) 312

Seq#:24; Line(s) 368

#### VERIFICATION SUMMARY

PATENT APPLICATION: US/09/648,692A

DATE: 04/23/2004 TIME: 11:49:46

Input Set : A:\Seqlist.txt

Output Set: N:\CRF4\04232004\1648692A.raw

L:106 M:252 E: No. of Seq. differs, <211> LENGTH:Input:65 Found:48 SEQ:7 L:200 M:360 E: Sequence data overflow, line data truncated, for SEQ ID#:10 L:200 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:16 L:200 M:252 E: No. of Seq. differs, <211> LENGTH:Input:4017 Found:3840 SEQ:10 L:205 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11 L:254 M:301 E: (44) No Sequence Data was Shown, SEQ ID:15 L:254 M:252 E: No. of Seq. differs, <211> LENGTH:Input:5 Found:0 SEQ:15 L:282 M:301 E: (44) No Sequence Data was Shown, SEQ ID:17 L:282 M:252 E: No. of Seq. differs, <211> LENGTH:Input:5 Found:0 SEQ:17 L:304 M:301 E: (44) No Sequence Data was Shown, SEQ ID:19 L:304 M:252 E: No. of Seq. differs, <211> LENGTH:Input:22 Found:0 SEQ:19 L:312 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:337 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:22 L:338 M:301 E: (44) No Sequence Data was Shown, SEQ ID:22 L:338 M:252 E: No. of Seq. differs, <211> LENGTH:Input:7 Found:0 SEQ:22 L:356 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:23 L:357 M:301 E: (44) No Sequence Data was Shown, SEQ ID:23 L:357 M:252 E: No. of Seq. differs, <211> LENGTH:Input:7 Found:0 SEQ:23 L:368 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:430 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:29